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EX PARTE OR LATE FILED

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March 19, 1997

VIACOM

William F. Caton
Acting Secretary
Federal Communications Commission
1919 "M" Street, Northwest
Room 222
Washington, D.C. 20554

RE: Ex Parte Presentation to Roy Stewart and Saul Shapiro,
Mass Media Bureau
MM Docket No. 87-268, Advanced Television Systems (Sixth FNPRM)

Dear Mr. Caton:

On March 11, 1997, representatives of Viacom International Inc. (Viacom), Sinclair Broadcast Group, Inc. (Sinclair), Sullivan Broadcasting Company (Sullivan), and Clear Channel Television Inc. (Clear Channel) met with Roy Stewart, Chief, and Saul Shapiro, Assistant Chief (Technology Policy), the Mass Media Bureau, in connection with the above-captioned rule making proceeding. The representatives of Viacom, Sinclair, Sullivan and Clear Channel were as follows:

Viacom: Paul Heimbach, Tom Polgar, Ellen Schned, and Edward Schor;
Sinclair: David D. Smith, Mark Hyman, Nat Ostroff and Kathryn R. Schmeltzer (of Fisher, Wayland, Cooper, Leader & Zaragoza);
Sullivan: Robert J. Ungar and Howard M. Liberman (of Arter & Hadden); and
Clear Channel: Lawrence Miller (of Schwartz, Woods & Miller).

The nature and scope of the oral presentation were limited to the UHF/VHF power-level disparity and other issues addressed in the Motion for Extension of Time filed by Sinclair and Sullivan on January 2, 1997, and in reply comments separately filed on January 24, 1997 by Viacom and Sinclair in response to the Sixth Further Notice of Proposed Rule Making. Also discussed were topics contained in the attached memorandum, a copy of which was furnished to Messrs. Stewart and Shapiro.

The proceeding at issue is a non-restricted proceeding in which presentations are permitted, but must be disclosed. Accordingly, pursuant to Section 1.1206 of the Commission's Rules, an original and a copy of this letter and the attached memorandum are hereby submitted.

Sincerely,

Ellen Schned

Ellen J. Schned
Vice President,
Government Affairs

cc: Roy Stewart (w/o enclosure)
Saul Shapiro (w/o enclosure)
Kathryn Schmeltzer, Esquire (w/o enclosure)
Howard Liberman, Esquire (w/o enclosure)
Lawrence Miller, Esquire (w/o enclosure)

EXECUTIVE SUMMARY

Background

- The FCC and the Broadcast Caucus/MSTV both propose tables of allotments for digital broadcasting that are both purportedly based on the principle of replication of each broadcast station's NTSC Grade B contour.

- The power levels contained in each of the two tables of allotments may not only eviscerate the principle of replication but may actually hurt UHF broadcasters in their Grade A coverage areas.

The Problem

- Both tables require the pairing of NTSC and Digital channels so that many VHF channels will be paired with UHF channels during the period of transition from analog to digital transmission. Even after the transition period, a large number of current VHF stations may remain on the UHF band.

- The FCC and MSTV tables are premised on viewers' use of outdoor antennas, an assumption that does not mirror reality.

- To attempt to replicate the VHF stations' larger NTSC Grade B service areas for the paired channel in the UHF band, both the FCC and Caucus tables assign enormous power levels to the VHF stations. These VHF power levels are as much as 100 times greater than the power assigned to UHF stations remaining in the UHF band.

- Given the tremendous power differences, there is a strong possibility that the status quo may not be maintained with respect to the ability of UHF stations to be as easily viewed as VHF stations paired with digital channels in the UHF band.

The Solution

- Adopt the MSTV/Caucus/Viacom/Sinclair compromise, particularly the provision that obligates the FCC at the end of two years to take whatever actions are necessary to insure maintenance in the digital era of the competitive posture of UHF and VHF stations.

  OR, in the alternative, defer adoption of any proposed table in order to collect test site data and

- Reconstruct the table of allotment to insure UHF's current competitive posture with respect to VHF stations, using different planning factors, including the assumption of use of indoor antennas, a fade margin to power levels to account for building penetration losses, and a noise figure of 10 dB.

March 11, 1997

UHF Stations in a Digital World

The television industry and the Commission are entering the world of digital broadcast television with meager amounts of empirical data based upon only one or two test sites and little, if any, practical working knowledge of how digital television actually will perform under the Commission's recently proposed table of allotments. Indeed, the compromise agreement entered into among numerous broadcasters, which calls for a two-year test period, clearly demonstrates the industry's reluctance to launch digital without benefit of concrete, real-world data.

The Commission must acknowledge at this inaugural phase of the digital era that its proposed table is premised not on the actual, but rather on the theoretical realm of electronic engineering and that this future of the largely unknown obliges the Commission to commit the agency to serve as an active spectrum manager through the entire transition period from NTSC to digital and thereafter, if necessary. Viacom, as licensee of 10 UHF stations and owner of the UPN network which is dependent on UHF affiliates for distribution, is extremely concerned that adoption of either the FCC or the Broadcasters' Caucus/MSTV proposed tables of allotments will, because of UHF/VHF disparities in power allocations, severely incapacitate UHF broadcasters in their capacity to compete with VHF broadcasters who move to the UHF band when broadcasting digitally.

The engineering community is divided on how severely, if at all, UHF broadcasting will be damaged. Without empirical data that confirms or disproves the theoretical hypothesis, UHF stations are at risk if the present proposals - which do not account for this possibility - are adopted. The enormous risks that UHF broadcasters in particular are compelled to undertake to launch the digital era should be matched by the Commission's pledge to superintend the successful completion of the shift to that new world.

Background

The FCC Proposal. The FCC's proposed table of allotments is based upon the principle of "service replication/maximization." *Advanced Television Systems, Sixth Further Notice of Proposed Rule Making ("Sixth Further Notice")*, in MM Docket No. 87-268, FCC 96-317 (released August 14, 1996). Under this approach, the Commission stated that it "would attempt to provide DTV coverage areas comparable to existing NTSC coverage areas, taking each station's actual facilities and interference into account." *Sixth Further Notice* at ¶12.

The "coverage area" of an individual NTSC station is defined as the area within the station's Grade B service contour, reduced by any interference. *Id.* at ¶86. In computing the Grade B service contour of each NTSC station, the Commission uses the location and antenna height identical to that of the replicated NTSC station and a power level believed to be sufficient to achieve noise-limited coverage equal to the NTSC station's Grade B coverage. *See id.* This Grade B service area also is based upon viewers' use of relatively high gain, outdoor antennas.

Because the FCC proposal provides for the assignment of a DTV channel for each of the more than 1900 NTSC channels nationwide, the proposed table pairs many NTSC channels operating in the VHF band with DTV channels in the UHF band. However, rather than use the spectrum spanning channels 2 through 69, as is the case today in analog, the FCC table "packs" the paired DTV channels into a "core" spectrum spanning only channels 7 through 51.

The Broadcasters Caucus/MSTV Proposal. In response to the FCC's proposal, MSTV also proposed a table based upon Grade B service area replication. But the MSTV table uses the full spectrum of channels 2 through 69, thereby resulting in the assignment of fewer V-to-U channels, as well as less interference to NTSC facilities.

The Problem: Power Levels Assigned to VHF Stations Moving to the UHF Band

Viacom and other UHF broadcasters are gravely concerned that both the FCC and MSTV tables could jeopardize the viability of UHF stations. That is because VHF stations assigned to channels in the UHF band are permitted to operate at power levels that are so comparatively high as to aggravate the existing propagation disparities between UHF stations and VHF stations.

Signals in the VHF band are transmitted over the horizon much more efficiently than are signals in the UHF band. Therefore, VHF stations have a proportionately larger Grade B service area than do UHF stations. In order to compensate for this disparity in the analog world, the Commission has established maximum power levels for three classes of channels. Stations operating on channels 2 through 6 have maximum power levels of 100 kW; channels 7 through 13 have maximum power levels of 316 kW; and channels 14 through 69 have maximum power levels of 5,000 kW.

Under both the FCC and Caucus table proposals, some VHF stations will be paired --at least during the transition period-- with UHF channels for DTV use. (After the transition, a number of VHF stations could determine to remain at their UHF assignments.) In order to replicate the larger Grade B service area of these VHF stations operating from the less efficient UHF band, the FCC and MSTV tables assign enormous power levels to the VHF stations moving to the UHF band. As a result, VHF stations in the UHF band ("V-to-U" stations") will enjoy power levels that are, in some cases, 100 times greater than those of UHF stations paired with a DTV channel in the UHF band ("U-to-U" stations).

Greater power means that viewers can easily receive the V-to-U signals --most likely with an indoor antenna on the back of the television set. On the other hand, reception of the U-to-U signals, with their lower assigned power levels, is in question. To be received by an indoor antenna, a signal, whether analog or digital, must be powerful: signal loss from penetrating a building and ricocheting from object to object ranges from 10 to 1000 times more than that loss experienced from merely penetrating air. Moreover, unlike analog signals, digital signals do not decrease in strength in relation to the distance from the transmitter. Instead, digital signals are subject to the "cliff effect," which means that the signal at some point of degradation simply drops off and cannot be received. So dramatic is this cliff effect that a viewer in a home on a given block in a given market may clearly receive the digital signal of a television station while her

neighbor across the street may have a blank TV screen because she is unable to receive that station's signal at all.

The tremendous power assigned to V-to-U stations and the resulting relative ease of reception of those stations' signals with indoor antennas will significantly alter the current competitive posture of the V-to-U stations over that of the U-to-U stations, particularly with respect to the delivery of new ancillary services to computers with low gain antennas, ancillary services which the Chairman envisions as providing revenues helpful to fund the expensive conversion to digital (See *Multichannel News*, March 3, 1997, p. 50). It is possible that while the V-to-U stations with substantially increased power levels will be able to nearly replicate their NTSC Grade B service areas, U-to-U stations may not be able to even replicate their NTSC Grade A service areas or, at worst, even serve their designated market area (DMA). Any decrease in the UHF service areas or the competitiveness in delivery of ancillary services could render UHF stations irrelevant to the digital era, in the presence of a multitude of choices of more easily received video programming and ancillary services. The lack of ease of reception of U-to-U signals when compared to V-to-U signals will result in a loss of viewership and subscribers to the U-to-U transmissions. Inadequate power level assignments for U-to-U stations could ultimately bring an end to free, over-the-air UHF television service and relegate their delivery to the American public by means of only subscription to cable, wireless cable or DBS services. Those pay services would, in turn, disenfranchise from UHF reception many urban and rural viewers who lack the discretionary income to pay for delivery of their programming and reduce diversity by diminishing the number of broadcast voices.

The Solution: FCC Adoption of the Broadcast Caucus//MSTV/Viacom/Sinclair Compromise Table or Deferral of Adoption of a Table Pending Collection of Empirical Data

Not until after the FCC and MSTV tables were released did UHF broadcasters fully understand the potential negative impact of the relative power levels on U-to-U stations. Upon realizing this problem, Viacom discussed the matter with MSTV, the Caucus and other broadcasters, who acknowledged that UHF stations might be seriously disadvantaged under both proposals. Once this issue was identified, the Caucus, Viacom and Sinclair collectively spent hundreds of hours attempting to craft a compromise whose objective was to assure that the "relative competitive posture" of analog VHF and UHF stations are maintained --not aggravated-- in the digital world. This relative competitive posture undoubtedly means that UHF and VHF stations must have the actual ability to serve via digital signals those viewers they now serve via NTSC signals. Thus, viewers cannot be permitted to suffer the loss of over-the-air UHF programming they might provide. Viacom's goal is not to eliminate the historical disparity between VHF and UHF stations, but merely to avoid exacerbating it.

The Compromise. A five-part compromise was reached among the Caucus (composed of MSTV, APTS, ALTV, ABC, CBS, Chris-Craft, NAB, NBC, PBS and Tribune), Viacom and Sinclair. As outlined below the first four elements of the five-element compromise constitute matters which the Commission can readily encompass in the table of allotments to be included in its Report and Order. The fifth and most important element, however, urges the Commission to assess data from

a two-year test period and to make changes necessary to assure that the relative competitive posture of VHF and UHF stations have not been exacerbated. That fifth element, in relevant part, states:

> Should the field tests show that fixes . . . are necessary to achieve replication, the FCC should adopt appropriate solutions, including **power increases or decreases for DTV stations as necessary,** individual DTV station facility changes and the assignment of unassigned channels if available.

Viacom urges the Commission to expressly and affirmatively pledge in the body of the Report and Order to be released in response to the *Sixth Further Notice* that the FCC, upon receipt of empirical data, should it demonstrate the impairment of the UHF service in part or in whole, will modify any and all values contained in, or defining the principles underlying, the then-existing table, even if such modification results in a reconstruction of that table.

Enforcement of the Compromise. Viacom fully supports the five elements of the compromise and urges the Commission to incorporate each of them in its Report and Order. Indeed, the parties to the compromise were able to come to an agreement based upon no one element in particular, but upon all of the elements in the aggregate.

Specifically, the elements of the compromise are as follows:

(1) acknowledge and support the ability of all stations to improve their indoor antenna reception by increasing their overall power beyond the powers specified in the table and target such power within their current Grade A service area;

(2) adopt and implement the principle of "maximization" (which would permit at least 700 of the existing 1,069 UHF stations to increase their power);

(3) for a two-year period, allow U-to-U stations to double their power up to "X" kW;

(4) for the same two-year period, allow V-to-U stations to phase in their power and operate at no more than "X" kW at the antenna height specified by the Caucus table; and

(5) at the conclusion of the two-year period, determine what adjustments were needed and implement them.

Viacom is profoundly concerned that the language of the fifth element not be construed by the Commission to mean that its enforcement of the compromise (should the Commission determine to enforce it) is limited only to those remedies enumerated, that is, power increases and decreases, individual DTV station facility changes, and the assignment of unassigned channels if available. Viacom and other UHF broadcaster believe that the Commission must expressly adopt an

enforcement mechanism which makes available to the FCC in the future not only the enumerated remedies, but a full complement of actions that may be deemed necessary to maintain the current competitive posture of VHF and UHF stations. It bears repeating that if empirical data should demonstrate that radical alteration of the table is necessary to preserve UHF broadcasting then the Commission must be make radical alterations The continued viability of the UHF service requires such a clear, written commitment from the FCC today.

The Alternative: Defer Adoption of a Table. In the event the Commission is unwilling to actively enforce the compromise and insure by all means necessary the NTSC competitive status quo, it should acknowledge that flaws may well be inherent in its proposed table of allotments and undertake **now** to reconstruct a new table premised on different planning factors. UHF broadcasters in particular risk substantial loss of the value of their television facilities if they are unable to provide service to their NTSC viewers. Viacom, therefore, believes that neither broadcasters nor viewers will be harmed by a two- or three-month delay in the launch of digital broadcast television to accommodate the development of a new table that will yield assurances well into the future of the continued NTSC status quo.

In addition to continuing to rely on the principle of Grade B replication, the planning factors that should be used if a new table is to be adopted now are: (1) assumption of use of indoor antennas; (2) a fade margin to the power calculation to take building losses into account; and (3) a receiver noise figure of 10dB. The first two of these factors require actual test site data, and, therefore, two or three months' collection of field measurements, to determine indoor reception by digital signals at various distances from the transmitter. Additionally, those factors, as well as the third factor, will raise the power levels assigned to all UHF stations by a factor of at least 10 dB (10 times), but will not affect most VHF power levels. Unfortunately, this power increase will create potential interference to UHF NTSC stations, but UHF facilities should be willing to sacrifice the fringes of their NTSC service areas during the transition period in exchange for a truly replicated digital service area.